Edge2 V7 Release Note

2024/11/07　Corrected document　v1.2
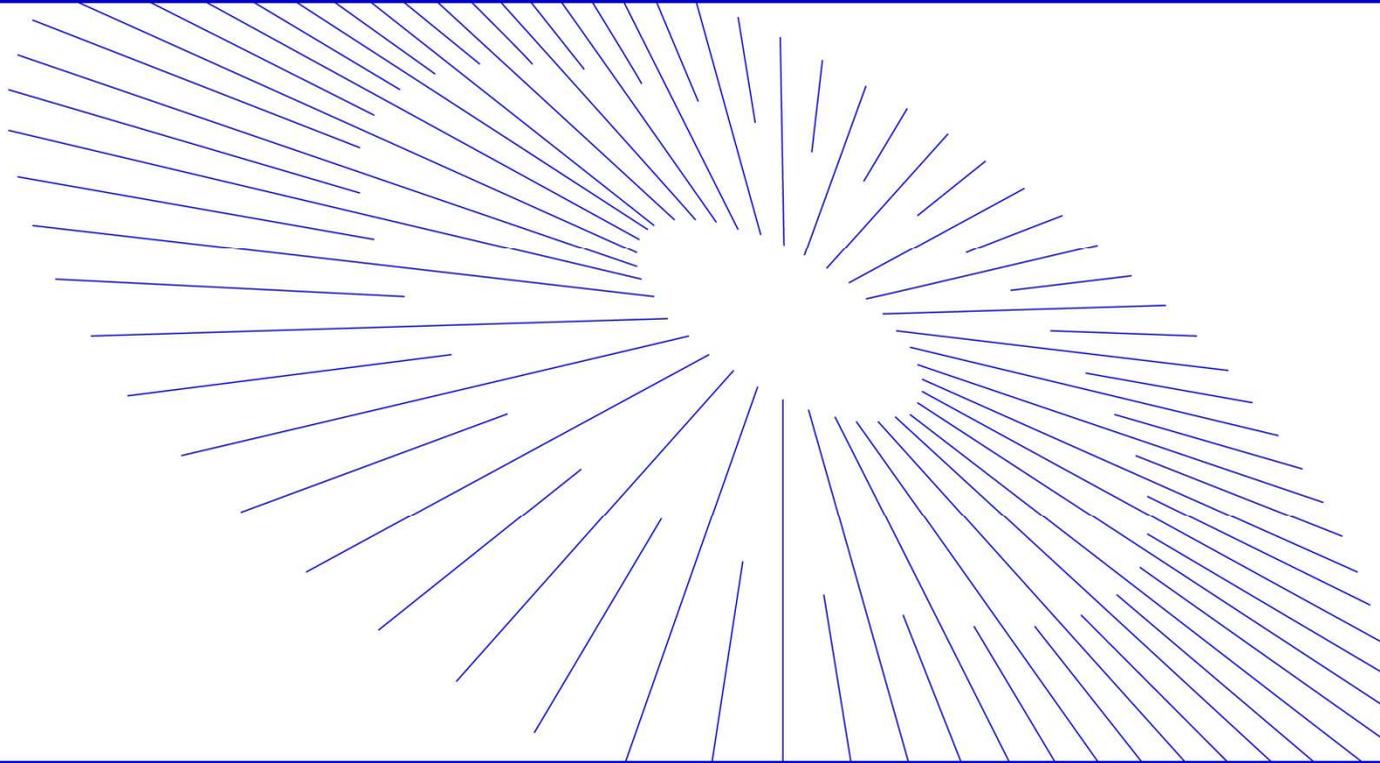
EARTHBRAIN

EARTHBRAIN **Edge2 v7 Update item** （Scheduled to be released on Oct. 23）

Application	Development items	Contents/Use case	UI Image
New feature /Performance Improvement	Changed "Vertical Accuracy Check" function settings	In the "Vertical accuracy verification" function, the radius of the point cloud search area can now be set up to 40 cm in 5 cm increments.	P 4
	Changed LED indicators when using the base station and drone base simultaneously	Changed the way the LEDs indicate when a base station, drone base, or both are being used simultaneously to make it easier to visually determine which mode is being used.	P5
	(.tfw file) output	World files (.tfw file) can now be output during ortho image output.	P 6
	Read drone images via USB, export via SD card	Drone images, control point data, etc. can now be written and read via USB/SD.	P 7
	Warning LEDs of battery low	The new UI now makes it easier to see when the battery is low, and the threshold for the LED warning has been adjusted.	P8
	GNSS Mask Angle Adjustment	The mask angle setting angle can now be changed in 1-degree increments from 0-30 degrees.	P 9
	Error reporting for self-position misalignment	It is now possible to report an error if the XY coordinates of the self-position are significantly off when PPK logging starts.	P 10

Edge2 v7 Update item （Scheduled to be released on Oct. 23）

Application	Development items	Contents/Use case	UI Image
New feature /Performance Improvement	Make software updates a single step.	Compatible with V7 or later. Even after OS updates, a single reboot completes the update.	No
	Added an icon to allow users to initiate updates at their discretion	OTA will not automatically download the update but will notify the user when an update is available, allowing the user to initiate the download	No
	Reset function	A restart icon has been added to enable restarting	P 1 1
	CMR support	CMR delivery is now supported for base station digital radio transmission	No
	Software update via USB memory stick	Enables seamless updates in areas with poor network conditions. ※We are currently unable to provide update files on the support site due to their large size. If you need the update file, please contact our support center.	No
	Display Projet time in local time	Remove time display for some projects	No
	Specific Android Tablet Support	Galaxy Tab Active4 Pro （model name SM-T630) is now supported.	No

In the ''Vertical accuracy verification'' function, the radius of the point cloud search area can now be set up to 40 cm in 5 cm increments.
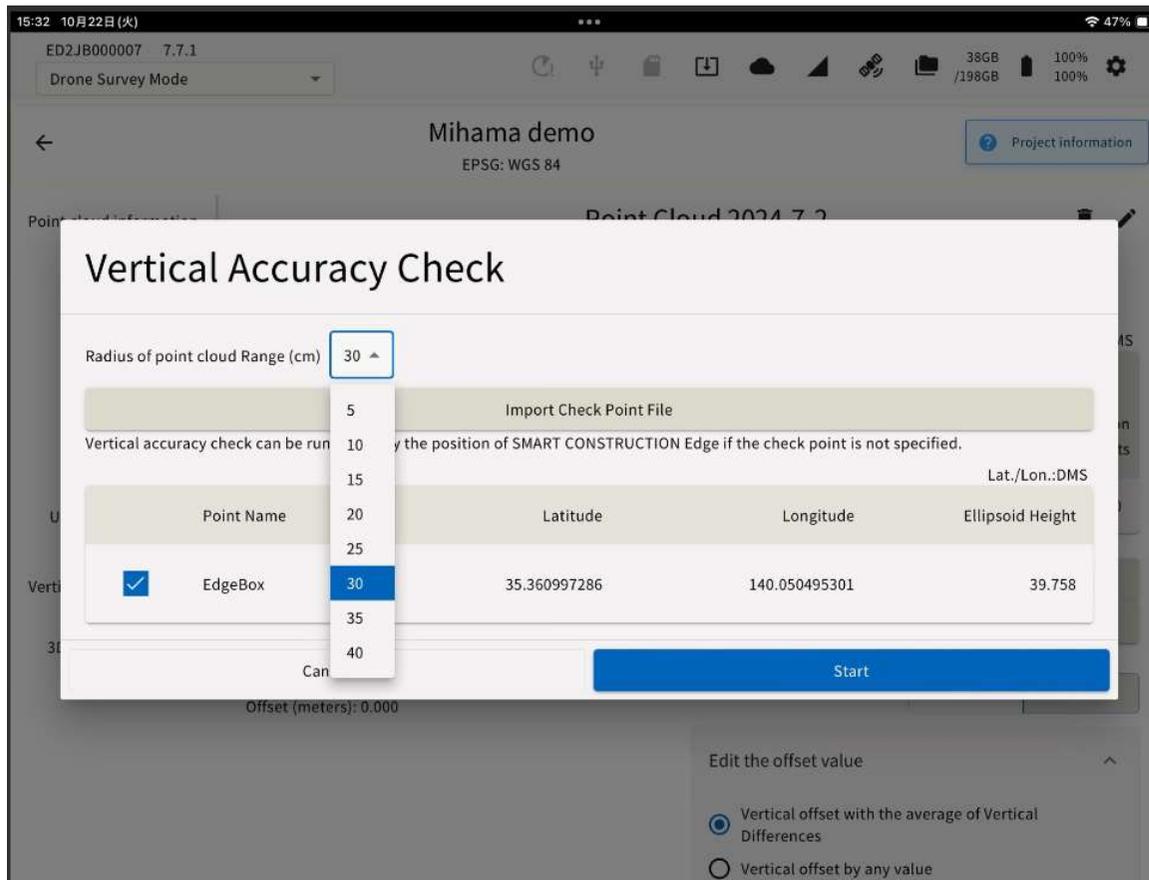
We apologize for any inconvenience caused and would like to correct an error in the previous release notes.

The LED indications for base station delivery, drone base use, and simultaneous use after v7 are as follows.

・**Base station broadcasting only**

Green flashing clockwise viewed from the top of the Edge

CW

・**Drone-based PPK logging only**

Green flashing counterclockwise when viewed from top of Edge

CCW

・**When Base station broadcasting and drone base are used simultaneously**
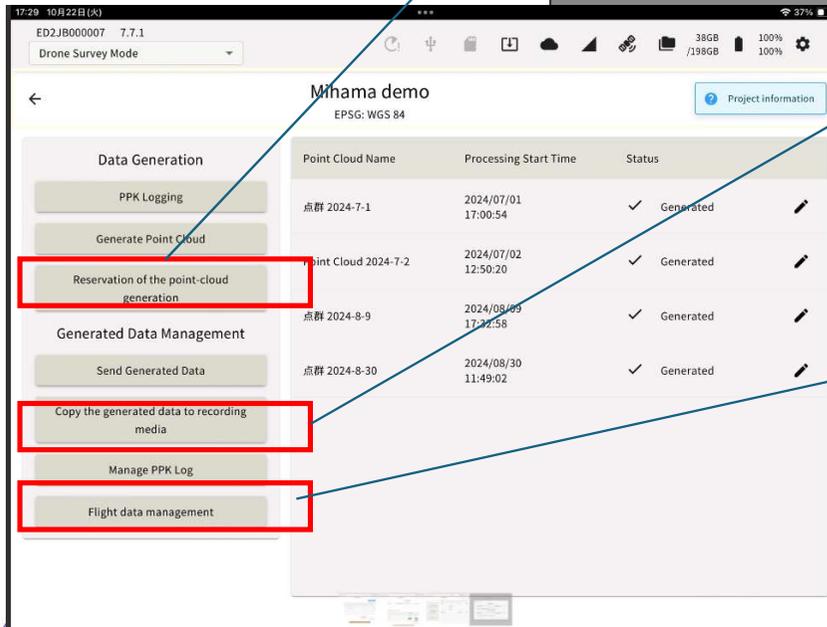
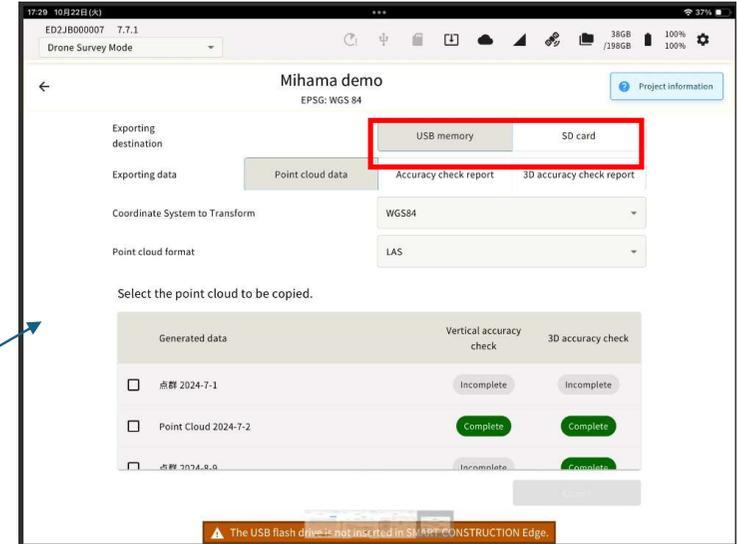Same green blinking (no rotating blinking) as up to v6

World file export specifications

File type	File name
pointcloud	20230922T064140Z_pointcloud_wgs84.las
pointcloud_removed	20230922T064140Z_pointcloud_removed_wgs84.las
orthophoto	20230922T064140Z_orthophoto_wgs84.tif
World file	**20230922T064140Z_orthophoto_wgs84.tfw**
DSM	20230922T064140Z_dsm_wgs84.tif
DTM	20230922T064140Z_dtm_wgs84.tif

No changes to the UI:
If an ortho has been generated, (.tfw file) will be automatically output.
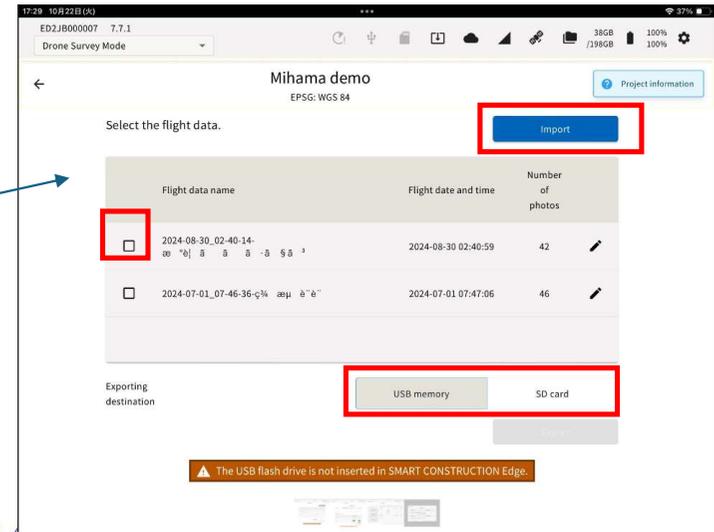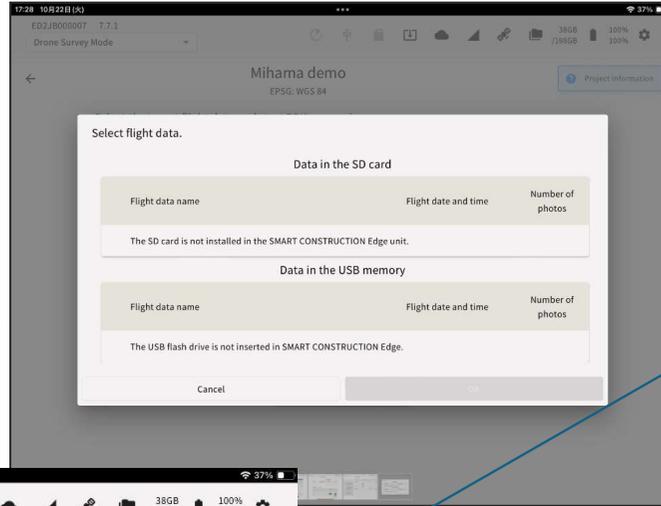
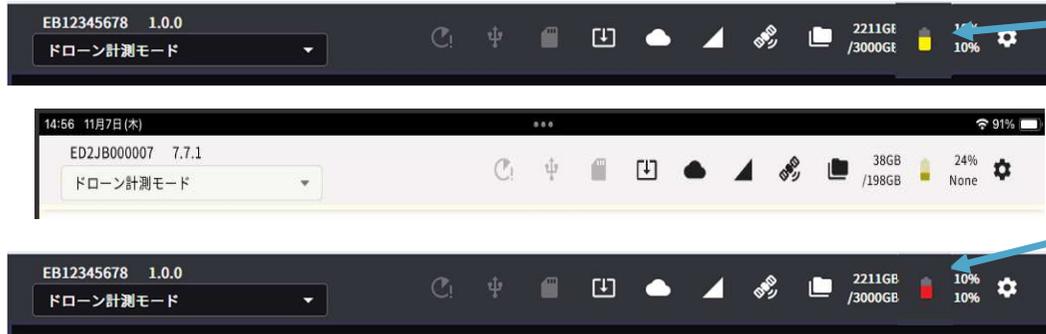# Read drone images via USB, export via SD card.

Drone images, control point data, etc. can now be written and read via USB/SD.

The new UI now makes it easier to see when the battery is low, and the threshold for the LED warning has been adjusted.

Status Bar

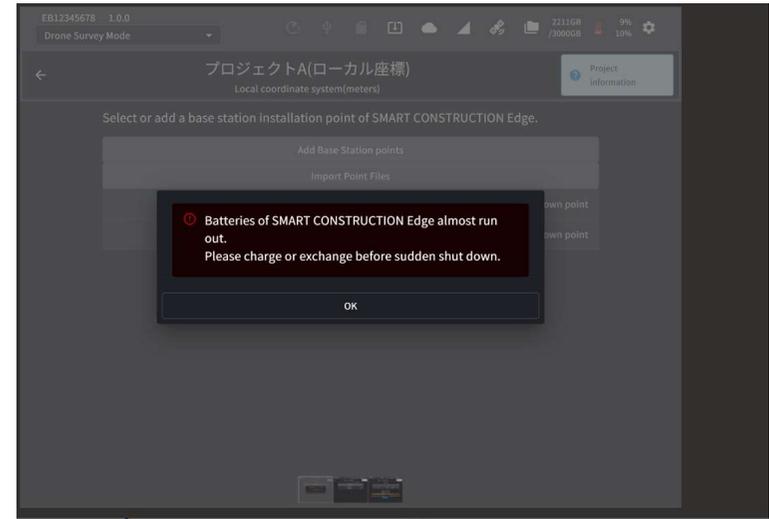The color of the battery icon changes when the remaining battery charge falls below the specified level.

Battery level below 50%.

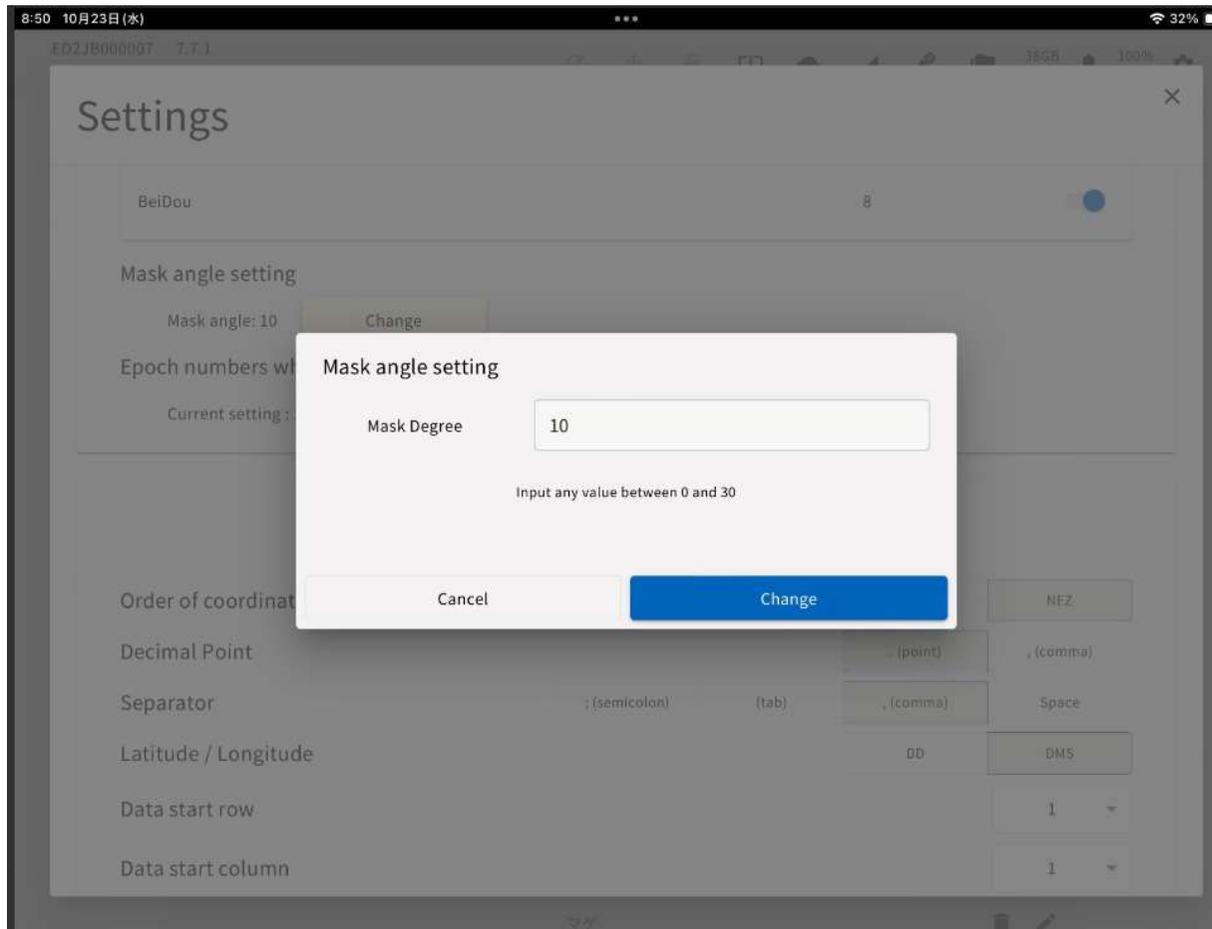Battery level is below 20% A warning is also displayed in the UI below.

Red blinking of the 4-way LED will start when the remaining capacity falls below 20%.

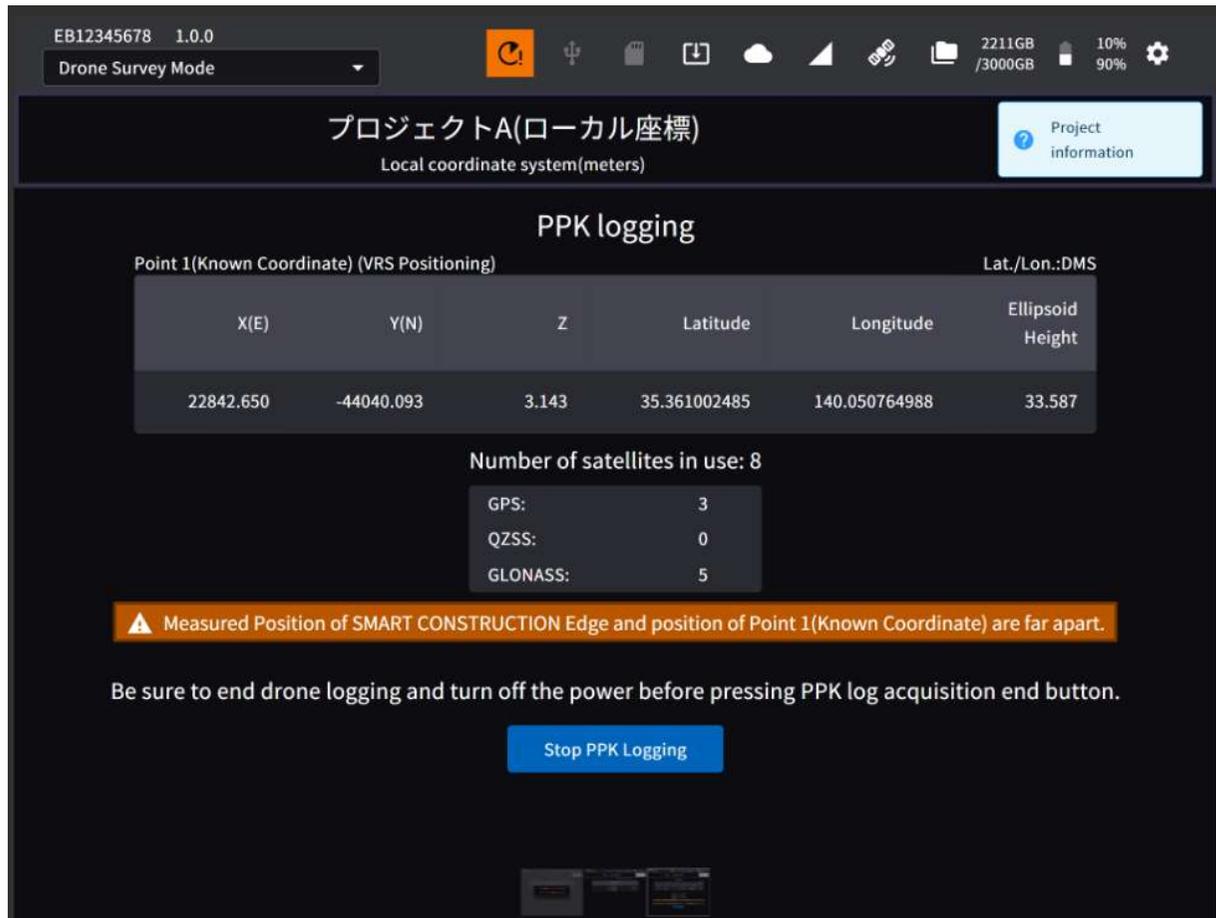*When performing point cloud processing, even before the battery level turns red

The voltage may drop suddenly and the system may go into a red blinking shutdown.

The mask angle setting angle can now be changed in 1-degree increments from 0-30 degrees.

EARTHBRAIN

It is now possible to report an error if the XY coordinates of the self-position are significantly off when PPK logging starts.
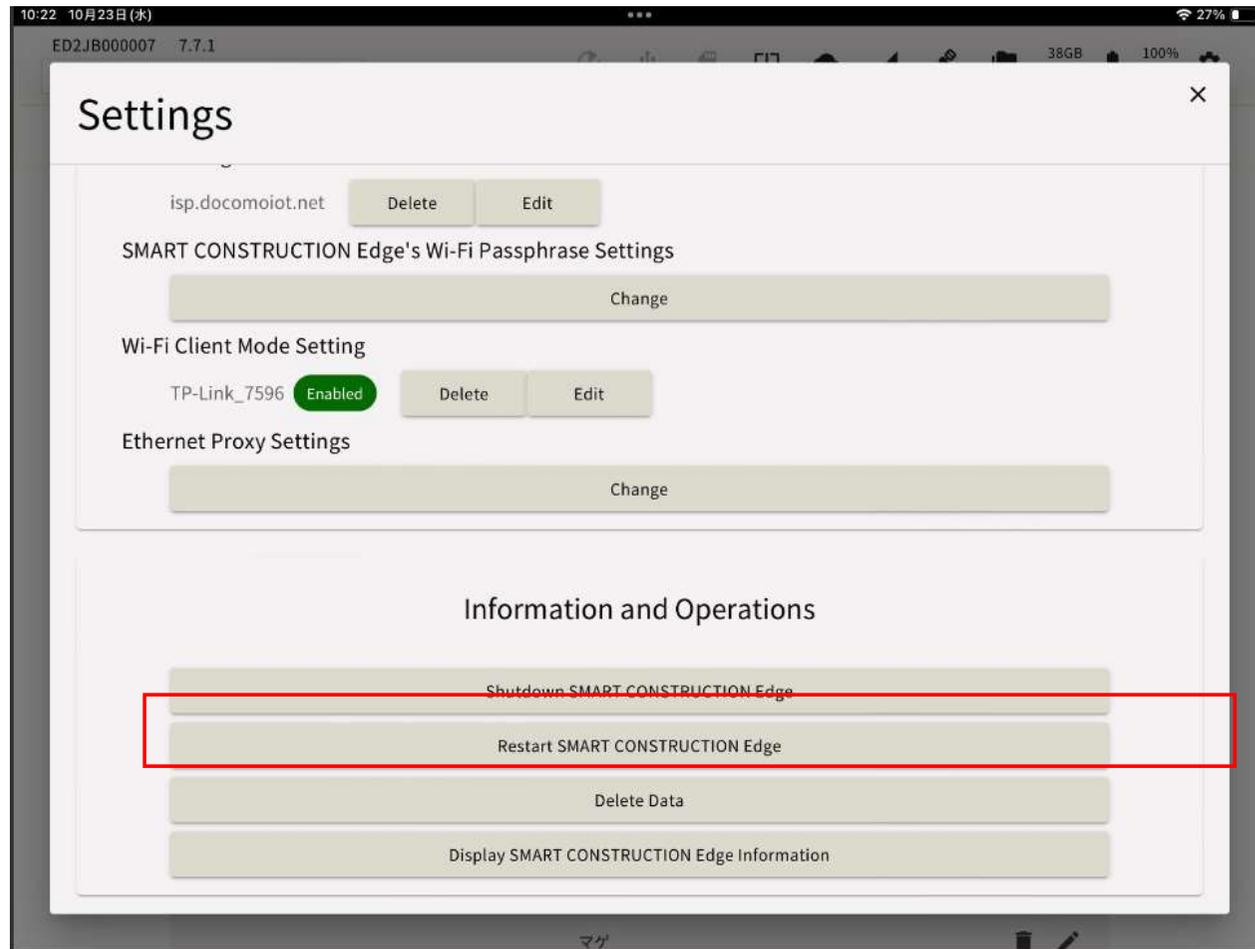
Reset function

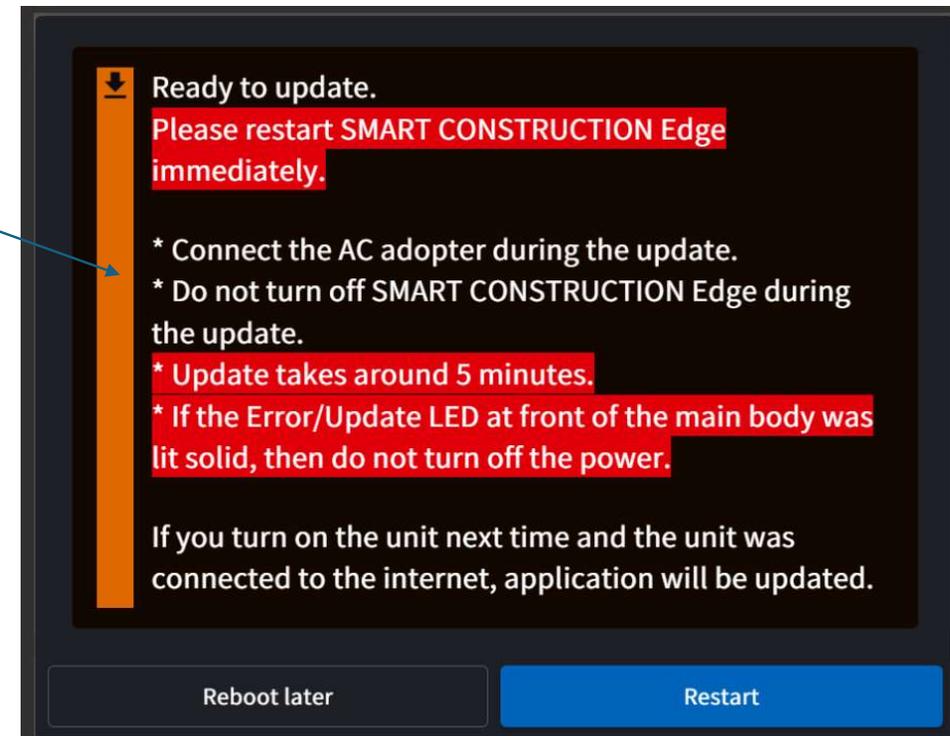A restart icon has been added to enable restarting

Note on V6 to V7 update

Background: Defects Related to Battery Charging

There have been several instances where the battery could not be recharged. To address this, we will update the battery control microcontroller. The upgrade process will proceed as follows:

1. The application will be downloaded as usual.
2. After the download is complete (indicated by an orange arrow), please turn the power OFF and then ON.
3. The OS download will begin.
   - Once the OS download is complete, a pop-up window will appear on the right.
4. When the AC adapter is connected and the restart button is pressed, the red LED on the 4-way indicator will light up temporarily. Please wait for the process to finish.
   - When the power turns off, restart as usual to complete the update.

Important Notes:

- If AC power is not connected during step 4, please turn the power off and on as usual. However, the sub-microcontroller will not be updated in this case.
- The sub-microcontroller update will occur when the power is turned off after AC power has been connected while the device is on.

Ready to update.
Please restart SMART CONSTRUCTION Edge immediately.

* Connect the AC adopter during the update.
* Do not turn off SMART CONSTRUCTION Edge during the update.
* Update takes around 5 minutes.
* If the Error/Update LED at front of the main body was lit solid, then do not turn off the power.

If you turn on the unit next time and the unit was connected to the internet, application will be updated.

Reboot later   Restart

• Update Procedure

■v7
  OTA名称： "7.7.0(RC1), 7.7.1(RC1 update)"
  FW VERSION：" 7.7.0(RC1), 7.7.1(RC1 update)"
   OS VERSION : "4.2.1"

  ※ We recommend updating the IPAD operating system to IOS 17.6 or higher.

(1) Turn on the Edge 2 and make sure you are online on the Internet with the I-pad.
Wired LAN is recommended since the data size may be up to a gigabyte.

(2) Please wait for the application to finish downloading.
 In a good network environment, such as a wired LAN connection, it will take approximately 30 minutes.
For LTE, it may take 1 hour or more.
By good internet connection, we mean a downstream speed of around 50Mbps.
If the internet connection is poor, the update may take around 3 to 4 hours, and in some cases, considerably longer.
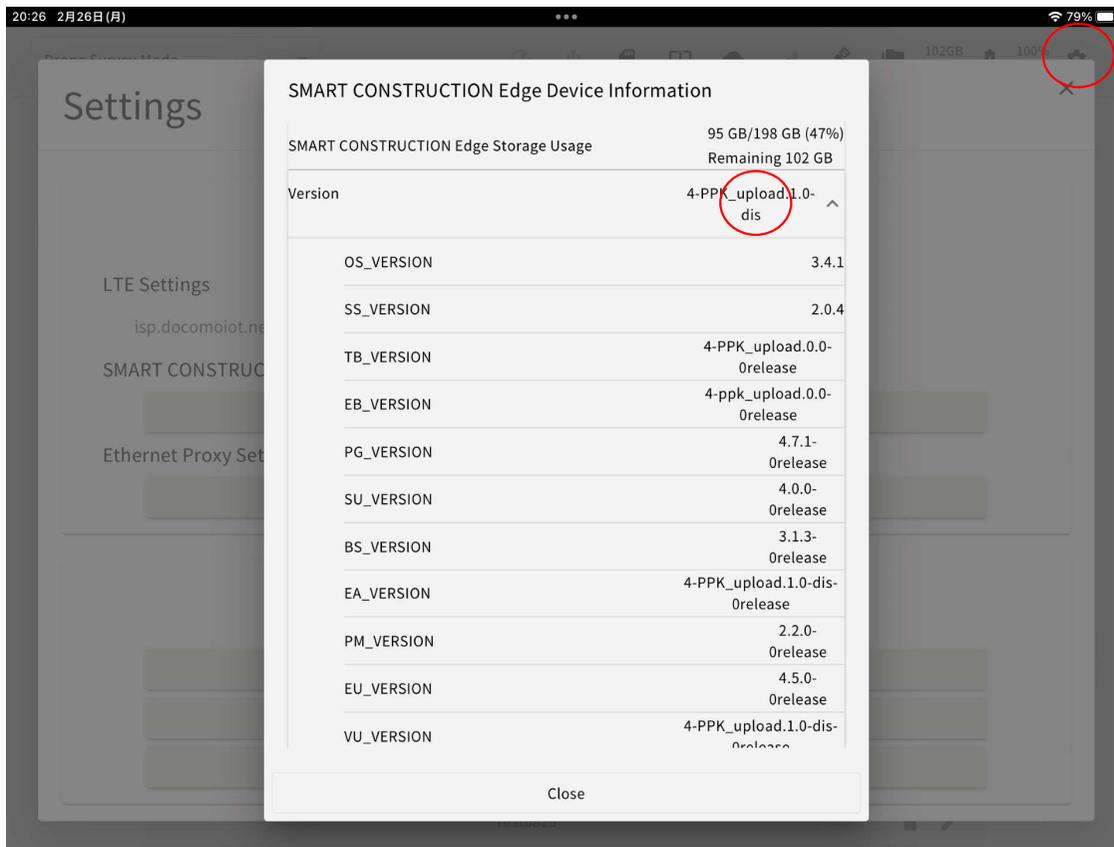
(3) Turn power off/on
Check the Firmware version. Go to the Settings screen -> SMART CONSTRUCTION Edge Device information, Confirm that the version is "7.7.1".If not, start over from (1). If it is, proceed to (4).

(4) Please wait for the OS to finish downloading.
In a good network environment 15 minutes for wired LAN connection, etc.; 30 minutes or more for LTE, etc.

(5) Turn power OFF/ON
Check the OS version. Go to the Settings screen -> SMART CONSTRUCTION Edge Device information, Confirm that the version is "4. 2. 1 ".If not, start over from (4). If the OS Ver is confirmed, you are done!